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A Table of Wave Lengths and Frequencies of Electromagnetic Radiations of Zero to Infinity

A. C. Bailey
Iowa State College

A TABLE OF WAVE-LENGTHS AND FREQUENCIES OF ELECTROMAGNETIC RADIATIONS FROM ZERO TO INFINITY

A. C. BAILEY

(ABSTRACT)

The table includes about seventy known octaves ranging from 20 X units to 20,000 meters. The octaves are plotted on a logarithmic scale 1 X arbitrarily chosen as the end of the first octave. The wave-lengths and frequencies of such radiations as are characteristic of known phenomena as well as those which limit certain known regions, are charted with notations of interest made opposite.

An inset of sound vibrations is included in its proper place in the table, in parallel with the electro-magnetic vibrations, the octaves running up from the first octave ending with two vibrations per second, to about the sixteenth octave, and continuing on through the electro-magnetic vibrations to about the seventieth octave, or a frequency of about 3×10^{20}.

Two classifications are given in the table of the different types of radiant energy and the limits arbitrarily set for each type.

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STUDIES ON THE EFFECT OF ULTRA-VIOLET RAYS UPON YEAST METABOLISM. I. THE EFFECT OF ULTRA-VIOLET LIGHT UPON THE MEDIUM

A. C. BAILEY, J. W. WOODROW, AND ELLIS I. FULMER

(ABSTRACT)

Exposure of the medium (composed of optimum concentrations of salts and sugar) to ultra-violet light renders it less effective for the growth of yeast. The development of the toxicity increases with duration and intensity of irradiation. An exposure of seven hours through quartz at about 15 cm from a quartz mercury vapor lamp affects the medium in such a way that yeast will show practically no growth in the medium. The work is